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10	UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA		
$\begin{vmatrix} 11 \\ 12 \end{vmatrix}$	SAN FRANC	CISCO DIVISION	
13	ASETEK DANMARK A/S,	CASE NO. 3:19-cv-00410-EMC	
14	Plaintiff and	ASETEK DANMARK A/S AND ASETEK	
15	Counterdefendant,	USA, INC.'S OPPOSITION TO DEFENDANTS' MOTION TO EXCLUDE	
16	ASETEK USA, INC., Counterdefendant,	CERTAIN OPINIONS OF DR. DAVID B. TUCKERMAN REGARDING INVALIDITY OF THE ASSERTED COOLIT PATENTS,	
17	V.	NON-INFRINGEMENT OF THE ASSERTED COOLIT PATENTS, AND	
18	COOLIT SYSTEMS, INC.,	INFRINGEMENT OF THE ASSERTED ASETEK PATENTS (DKT. 397)	
19	Defendant and	D	
20	COOLIT SYSTEMS USA INC. COOLIT	Date: May 5, 2022 Time: 1:30 PM	
21 22	COOLIT SYSTEMS USA INC., COOLIT SYSTEMS ASIA PACIFIC LIMITED, COOLIT SYSTEMS (SHENZHEN) CO.,	Location: Courtroom 5, 17 th Floor Judge: Hon. Edward M. Chen	
$\begin{bmatrix} 22 \\ 23 \end{bmatrix}$	LTD.,		
24	Defendants,		
25	CORSAIR GAMING, INC. and CORSAIR MEMORY, INC.,		
26	Defendants.		
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I. INTRODUCTION

Dr. Tuckerman did not rely upon unreliable methodologies, facts, or data in rendering his opinions. For example, he personally measured the microchannels on the Antarctica device using calipers, the same kind of tool used by Defendants' expert. And as expressly permitted under FRE 702, Dr. Tuckerman properly relied upon reliable information from, e.g., Defendants' own business records and Asetek, which will be admitted at trial after a foundation is laid by other witnesses. Defendants' argument that Dr. Tuckerman could not rely upon information unless he will be the sponsoring witness at trial is contrary to Rule 702 and the law, and is belied by Defendants' own expert reports, which rely upon hearsay and assume the correctness of incorrect and unsubstantiated assumptions. Defendants' Daubert motion should be denied.

II. FACTUAL BACKGROUND

The relevant facts are discussed in the Argument section below to provide appropriate context.

III. ARGUMENT

A. Dr. Tuckerman's Opinions on Antarctica's Microchannels Are Based on His Personal Inspection and Measurements of the Device and His Methodology for the Measurements Has Been Fully Disclosed to Defandants; Nothing More is Needed Under Rule 702 or Rule 26

Defendants' motion to exclude Dr. Tuckerman's opinion on microchannels in Antarctica is contrary to the law and the facts in this case. Defendants bury their heads in the sand and ignore that Dr. Tuckerman testified on multiple occasions that he *himself* measured the channel widths in Antarctica with calipers, the measurements were between 0.9-1.0 mm, and he therefore opined that the channels in Antarctica were indeed microchannels (per the parties' stipulation that "microchannels" mean "channels with widths up to 1 millimeter"). Dkt. 395-4, ¶57 (Dr. Tuckerman reporting under *penalty of perjury* in his Invalidity Report that "[t]he space between adjacent fins is about 0.9 - 1.0 mm"); *see also* deposition testimony excerpted below.

Defendants' motion ignores the testimony below by Dr. Tuckerman during his *December 20*, *2021 deposition*. His testimony established that he used an appropriate and reliable methodology to measure the channel widths in Antarctica, and that his measurements showed that the channels were about 0.9-1.0 mm:

1	Q. Okay. And in preparing your expert report, did you review the Antarctica device?	
2	A. I did.	
3	Q. Did you physically review the Antarctica device in preparing your report? A. I did.	
4		
5	Q. Okay. And when did you inspect the device, if you can recall the dates?	
6	A. I believe it was July 5th. Yeah, the day after July 4th, I was down [in Palo Alto].	
7	Ex. A at 122:20-123:11 (emphases added).	
8	O Okay And you state in paragraph 57 that the space	
9	Q. Okay. And you state in paragraph 57 that the space between adjacent fins is about 0.9 to 1 millimeter; correct? A. Yes.	
10	Q. What evidence do you point to in your report for this	
11	opinion?	
12	A. Well, okay. So first there is Eriksen's deposition; however, I didn't think that was sufficient to be something	
13	I was going to swear to, so I wanted to inspect the device personally. And I used like <i>I used calipers to measure</i>	
	the fins at the base which is where I felt the most relevant	
14	dimension was because the base of the fins is where the most heat transfer occurs. As fins you go up in fin	
15	height, they become less effective. And so to me, <i>the base</i>	
16	was the relevant dimension to measure it at. And I got readings, you know, between [0.9] and 1.0, so I was okay	
17	with that.	
	Q. Did you make those measurements prior to submitting	
18	your report or after you submitted your report? A. I made them prior.	
19	<i>Id.</i> at 137:9-138:13 (emphases added).	
20	During Dr. Tuckerman's supplemental deposition on March 18, 2022, he testified again	
21	about the methodology for his measurements and the results (i.e., channel widths of 0.9-1.0 mm):	
22	So I believe I indicated that they were what I did was, as	
23	you'll recall, back in July I put calipers at the bottoms of the grooves, which is where they would be narrowest	
24	that's the way the machining works and looked for to	
25	see if any exceeded a millimeter, and they didn't. And that that's all I did on it. I didn't think it was necessary to do more.	
26	Ex. B at 8:23-9:12 (emphasis added).	
27		
	So I Okay. So <i>I'm saying space between adjacent fins is about 0.9 to 1.0 millimeters</i> . And, while I don't specify that	
28	here, I deposed I was deposed previously on this, and	
- 1	A CETEV'S OPPOSITION TO DECEMBANTS' MOTIO	

indicated that I took measurements with calipers at the bottoms of the microchannels on July 5th -- I think it was - and got - didn't get any measurements above 1.0. And they were all .9-something. But that -- that's about all.

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Id. at 14:3-10 (emphases added); see also id. at 15:1-3 ("I took some measurements. And I reported

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that they were between .9 and 1.0."). Defendants' motion ignores all of the above testimony about Dr. Tuckerman measuring the

Antarctica himself and reporting on the results, and instead implies that Dr. Tuckerman based his microchannel opinion solely on the deposition testimony of Asetek's CEO André Eriksen. See Dkt. 397 at 9. That is incorrect. Dr. Tuckerman testified that he personally inspected and measured the Antarctica device (see above) and that he is relying on his own measurements in "combin[ation]" with Mr. Eriksen's testimony. Ex. A at 138:17-138:22; see also id. at 140:14-23. Moreover, contrary to Defendants' assertion, it was proper for Dr. Tuckerman to have considered and relied on the transcript of sworn testimony given by a Rule 30(b)(6) witness in formulating his own opinion; Dr. Tuckerman did not have to personally talk to Mr. Eriksen to rely on his deposition testimony.

Defendants' attempt to sow doubt about Dr. Tuckerman's sworn testimony by implying he gave inconsistent dates for when he took his measurements is also misplaced. See Dkt. 397 at 10. As the excerpted deposition testimony above shows, he consistently testified that he measured the Antarctica on July 5, 2021. Ex. A at 122:20-123:11; Ex. B at 8:23-9:12, 14:3-10.

Defendants' motion asserts that Dr. Tuckerman supposedly did not submit any "evidence" of his measurements, and complains that he did not "record" his measurements. Dkt. 397 at 10. Defendants ignore that Dr. Tuckerman signed his Invalidity Report under penalty of perjury, so his sworn statement that the channel widths in Antarctica are between 0.9-1.0 mm is itself admissible evidence in this case. See Dkt. 395-4 at 72. Dr. Tuckerman also testified in depositions under oath, where he again testified about his measurements and the channel widths in Antarctica, which are also evidence about the microchannels in Antarctica. See excerpted deposition testimony, above. Defendants' other criticism that Dr. Tuckerman did not "record" his measurements, even if true, "go[es] to the weight and the credibility of his opinion, not its admissibility." Godo Kaisha IP Bridge 1 v. Broadcom Ltd., No. 2:16-CV-134-JRG-RSP, 2017 WL 2839492, at **1-2 (E.D. Tex. Apr. 20,

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2017) ("None of Defendants' criticisms calls for the exclusion of [the expert's] opinion. For example, Defendants allege that [the expert] does not show his work. They also assert that he used 'high-resolution images' that are not in his report. Even if true, these criticisms either go to the weight and credibility of his opinion, not its admissibility.").

In addition to the above general criticisms, none of which warrants exclusion of Dr. Tuckerman's opinions on the microchannels in Antarctica, Defendants additionally argue that Dr. Tuckerman's deposition testimony on his methodology for measuring the channel widths in Antarctica should be excluded under *Daubert* and Rule 26. Defendants also argue that Exhibit 275, which shows the 0.93 mm blade used to cut the Antarctica microchannels, should be excluded based on hearsay. None of these arguments has any merit, and each is addressed below.

1. Dr. Tuckerman's deposition testimony on his methodology in measuring the channel widths in Antarctica

Dr. Tuckerman testified in two separate depositions that he measured the channel widths of the Antarctica at the base/bottom of the microchannels using calipers. See deposition testimony above. Defendants do not dispute the reliability or appropriateness of Dr. Tuckerman's methodology for measuring the channels widths. That should be the end of Defendants' Daubert challenge. See Godo Kaisha, 2017 WL 2839492, at *2 (citing Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 592-93 (1993) and finding there was no *Daubert* issue because the expert used an appropriate and reliable methodology and Defendant did not dispute that). Moreover, as in Godo Kaisha, Dr. Tuckerman's methodology is verifiable because he disclosed his methodology in sufficient detail (see deposition testimony above). In fact, Defendants' expert used the same methodology, measuring the microchannels with calipers, except he measured at the top of the channels, whereas Dr. Tuckerman measured at the base. See Dkt. 397 at 10. Defendants' counsel used its expert's measurements to crossexamine Dr. Tuckerman twice—first on December 20, 2021 and again on March 18, 2022. Bhattacharyya Decl., ¶ 10. Thus, Defendants' argument that "[n]o assessment of the reliability of Dr. Tuckerman's opinion can be made" (Dkt. 397 at 11) is meritless. Defendants' can (and did) assess the reliability of Dr. Tuckerman's methodology through cross-examination and has not disputed the appropriateness or reliability of his methodology. The Court should therefore find that Dr.

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Tuckerman's reasoning and methodology for measuring the channel widths in Antarctica are reliable and additional measurements or scientific experiments were not required for his opinion. Accordingly, Dr. Tuckerman's opinions should not be excluded under Rule 702 and *Daubert* because he is a qualified expert and his opinion "will aid the fact finder and is reliable." *Godo Kaisha*, 2017 WL 2839492, at *1 (citing *Daubert*, 509 U.S. at 509 and Fed. R. Evid. 702(a)-(d)).

Defendants' attack on Dr. Tuckerman's microchannel opinion under Rule 26 is also unavailing. Although Dr. Tuckerman's Invalidity Report did not specifically disclose his methodology of measuring the Antarctica channels at the base using calipers, Dr. Tuckerman deposition testimony on this issue is admissible because it is "consistent" with his Report and is "a reasonable synthesis and/or elaboration of the opinions contained in [the] report." nCube Corp. v. SeaChange Int'l, Inc., 809 F. Supp. 2d 337, 347 (D. Del. 2011); see also Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc., 585 F. Supp. 2d 568, 581 (D. Del. 2008) ("In determining whether an expert's testimony has exceeded the scope of his or her report, the Court has not required verbatim consistency with the report, but has allowed testimony which is consistent with the report and is a reasonable synthesis and/or elaboration of the opinions contained in the expert's report.") (citation omitted); Asetek Danmark A/S v. CMI USA, Inc., No. 13-CV-00457-JST, 2014 WL 6997670, at *1 (N.D. Cal. Dec. 9, 2014) (citing nCube and Power Integrations). Specifically, Dr. Tuckerman's Report already disclosed that the Antarctica channel widths are about 0.9-1.0 mm. Dkt. 395-4, ¶57. The additional deposition testimony that the widths were measured using calipers at the base of the channels was a reasonable "elaboration" of his opinions in his Report. nCube, 809 F. Supp. 2d at 347; Power Integrations, 585 F. Supp. 2d at 581.

Moreover, in determining whether expert testimony should be excluded for not meeting the requirements of Rule 26(a)(2)(B), "the Court examines whether the objecting party had *sufficient notice* of the testimony [before trial] based upon the contents of the report and the elaborations made during expert discovery and deposition." *Power Integrations*, 585 F. Supp. 2d at 581 (emphasis added). And even if an expert's testimony was not sufficiently disclosed in his/her report as required by Rule 26(a)(2)(B), "the objecting party must also demonstrate that it *suffered undue prejudice*

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before the Court determines that a new trial is required." *Id.* (emphasis added). Defendants cannot meet either of these factors.

First, Defendants have been put on notice of the scope of Dr. Tuckerman's testimony one year before trial based upon the elaborations made during his two rounds of depositions, therefore Defendants cannot reasonably claim that it would be unfairly "ambushed" at trial. Defendant does not contend (nor can it) that after having taken two depositions of Dr. Tuckerman on this issue, it is still not sufficiently apprised of the very simply methodology used by Dr. Tuckerman to measure the channel widths (which is almost the same methodology used by Defendants' own expert).

Second, the alleged late disclosure of Dr. Tuckerman's methodology is not unduly prejudicial to Defendants. Indeed, Defendants' motion does not assert any prejudice or harm from the belated explanation of the methodology for measuring the Antarctica channel widths. That should be the end of the inquiry under Rule 26 and Rule 37. See Fed. R. Civ. P. 37(c)(1) (A party that "fails to provide information or identify a witness as required by Rule 26(a) or (e) . . . is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.") (emphasis added); see Asetek, 2014 WL 6997670, at **1-2 (inquiring "whether the late disclosure of [CMI's expert's] opinion was either substantially justified or harmless to Asetek" under Rule 37); Galentine v. Holland Am. Line-Westours, Inc., 333 F. Supp. 2d 991, 993 (W.D. Wash. 2004) (inquiring whether "failure to disclose the information in accordance with Rule 26 or other court orders was harmless") (citing Yeti by Molly, Ltd. v. Deckers Outdoor Corp., 259 F.3d 1101, 1107 (9th Cir. 2001)). At most, Dr. Tuckerman's failure to disclose his measuring method in his Report was an unintentional and harmless omission that has already been remedied by Dr. Tuckerman's deposition testimony. Defendants were provided with the general substance of Dr. Tuckerman's intended testimony with his Report on November 3, 2021, and Dr. Tuckerman then reasonably elaborated on his methodology during his cross-examination on December 20, 2021, as permitted by law. Defendants deposed Dr. Tuckerman again on March 18, 2022 (after having almost 3 months to prepare for the second round of cross-examination), where Dr. Tuckerman gave consistent testimony on his methodology. Thus, Defendants' ability to effectively prepare for trial, and to cross-examine Dr. Tuckerman, has not been hampered. Nor did the late disclosure

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significantly hamper Defendants' ability to arrange for competing expert opinions because, on December 8, 2021, CoolIT served its own expert report providing competing measurements of the Antarctica's channel width. Dkt. 387-15, ¶¶72-74. Thus, the objective of Rule 26(a)(2)(B), which is "intended to provide opposing parties reasonable opportunity to prepare for effective cross examination and perhaps arrange for expert testimony from other witnesses" has been sufficiently met. OFS Fitel, LLC v. Epstein, Becker & Green, P.C., 549 F.3d 1344, 1361-1362 (11th Cir. 2008). Given that there is no prejudice or harm to Defendants from allowing Dr. Tuckerman to testify about his measuring methodology, his opinion should not be excluded under Rule 26 or Rule 37.

The cases cited by Defendants to support its argument for exclusion under Rule 26 are readily distinguished. In Asetek, CMI's expert was precluded from giving certain opinions at trial because "the late disclosure came literally on the eve of trial, and the Court's only choice to remedy the prejudice to Asetek [was] to exclude" the testimony. Asetek, 2014 WL 6997670, at *2 (emphasis added). Specifically, in Asetek, the court found that the late expert opinion was not in the expert's report and was not clearly disclosed during his deposition testimony, and thus "Asetek was harmed by being unable to cross-examine Dr. Carman prior to trial regarding his opinion." *Id.* at **1-2. The court recognized other situations where late disclosure did not warrant exclusion because the disclosure came "several months before trial" and any potential harm to the opposing party was mitigated by additional discovery. See id. at *2 (discussing Galentine, 333 F. Supp. 2d at 993-994). Ultimately, the court excluded the disputed testimony from CMI's expert because it came "on the eve of trial" and there was no way to mitigate prejudice to Asetek through additional discovery. See id. That is not the case here. The additional deposition testimony by Dr. Tuckerman was provided more than a year before trial and during the expert discovery phase, and Defendants have already deposed Dr. Tuckerman twice on this very issue. There is no way Defendants can legitimately assert any prejudice to them from the deposition testimony regarding his measurement methodology (nor have they).

Yeti by Molly, which is a seminal case in the 9th Circuit on exclusion of belated expert opinion under Rule 26 and Rule 37 (which "gives teeth" to the Rule 26 requirements), is also distinguishable from the facts here. 259 F.3d 1101 at 1106. There, the belated expert report came "almost two years after the close of discovery, more than one year after [the opposing party's] report was last

supplemented, and just 28 days prior to trial." *Id.* at 1105. Therefore, the 9th Circuit agreed with the district court's finding that such belated disclosure was neither justified nor harmless because it came just "one month before they were to litigate a complex case," and to respond to it the opposing party "would have had to depose [the expert] and prepare to question him at trial." *Id.* at 1107. That is again not the case here because the disputed deposition testimony was disclosed more than a year before trial and Defendants have already deposed Dr. Tuckerman twice on this topic.

In Foshee v. Zuniga, the court found that the plaintiff's expert "may not testify to opinions not disclosed in his written expert report, unless [defendant's counsel] solicited those opinions from him in his deposition." No. 20-CV-00132-VKD, 2021 WL 1947560, at *8 (N.D. Cal. May 14, 2021). The Foshee court only excluded previously undisclosed deposition testimony that was volunteered by the expert or was solicited on redirect. See id. That is not the case here. Dr. Tuckerman did not volunteer the opinion testimony that Defendants are trying to exclude, nor was this testimony solicited by Asetek's counsel on redirect. Bhattacharyya Decl., ¶ 11 Rather, the challenged testimony by Dr. Tuckerman was provided in response to questions by Defendants' counsel, and was directly responsive to questions by Defendants' counsel. Id.

Similarly, in *Edwards Lifesciences Corp. v. Meril Life Scis. Pvt. Ltd.*, the court only excluded opinion testimony of Edwards' experts that were solicited by Edwards' counsel through redirect questions at the ends of their depositions. No. 19-CV-06593-HSG, 2022 WL 254348, at *7 (N.D. Cal. Jan 27, 2022). The court noted that "Edwards' surprise tactics at the expert depositions were not 'substantially justified' or 'harmless' under Rule 37 because they left Meril's counsel unable to effectively prepare for those depositions." *Id.* That is again not the case here because Asetek's counsel did not solicit the testimony at issue, nor can Defendants claim they were unable to effectively prepare for cross-examination because they had an opportunity to depose Dr. Tuckerman a second time on the same issue after having three months to prepare for the second round of deposition.

Given the importance of Dr. Tuckerman's testimony to Asetek and the lack of undue prejudice to Defendants, the facts of this case do not warrant the exclusion of Dr. Tuckerman's methodology opinion on Rule 26 grounds.

Exhibit 275

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Defendants' argument that Exhibit 275, which shows the 0.93 mm blades used to cut microchannels in Antarctica, should be excluded is also contrary to the law. Defendants' basis for seeking exclusion is unclear. They seem to be arguing that Exhibit 275 is "hearsay" and therefore Dr. Tuckerman cannot rely on it. That is not correct because the Federal Rules of Evidence specifically allows experts to "base an opinion on facts or data in the case that the expert has been made aware of or personally observed." Fed. R. Evid. 703 (emphasis added). Moreover, "[i]f experts in the particular field would reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admitted." *Id.* Accordingly, Dr. Tuckerman did not have to personally inspect the blades, or "machine the heat spreader plate himself or watch it being done," as argued by Defendants. Dkt. 397 at 11. Under Federal Rule of Evidence 703, Dr. Tuckerman can properly assume that the 0.93 mm blades shown in Exhibit 275 used to cut channels in Antarctica and offer his microchannels opinion based on that assumption. See 1972 Rule 703 Advisory Committee Notes (Rule 703 allows existing practice of expert answering hypothetical questions or hearing foundational testimony at trial). As to admissibility of Exhibit 275, Asetek will not use Dr. Tuckerman for that purpose, rather an Asetek witness will establish the evidentiary basis for admissibility of Exhibit 275.

Defendants also misrepresent that Dr. Tuckerman could not have read Exhibit 275 because it is in Danish and that he is improperly relying on representations from Asetek's counsel. Dkt 397 at 11-12. Dr. Tuckerman testified during his December 20, 2021 cross-examination (not redirect) that he consulted Exhibit 275 for additional corroboration of the widths of the Antarctica channels, and that he was able to confirm based on a legend below the picture of the blades (that Asetek represented was used to machine the channels in Antarctica) that the blades were indeed "intended to give you a nominal 1-millimeter" cut. Ex. A, 138:10-140:23. Because Defendants' counsel did not follow up on Exhibit 275 or the legend, which actually is in English (not Danish), Asetek's counsel redirected Dr. Tuckerman on the legend to clarify and complete the record:

on the regent to clarify and complete the record.

Q. Earlier in your deposition you said that Exhibit 275 showed you a tool that was -- that is, based on your understanding, the tool that was used to machine the

microchannels in the Antarctica device. You do you recall that?

A. Yes. It's my understanding that it's Asetek's assertion that this is the blade that was used to cut the microchannels, and it is evident from the picture that it had a [thickness] of 0.93 millimeters, which . . . Asetek asserts that that box contains, I believe, the saw blades. And [from] the labeling on the box, I am a making

an inference from the 50-by-1-by-13, that the 50 is probably a blade diameter, and the 1 refers to the thick -- the nominal thickness of the cut that it's supposed to make. In other words, you know, if you're trying to make a nominal 1-millimeter cut, you're going to use a blade that is thinner than that because there's what's called a kerf width that you always get when you cut. So it always -- you always end up with a groove that's a little larger than your blade. But that blade would be consistent with the

kind of channels I saw on Antarctica.

Id. at 261:20-264:15 (emphases added). The testimony above shows that Exhibit 275 is not entirely in Danish; that Dr. Tuckerman was able to read parts of it and inferred relevant information from it; and that Dr. Tuckerman was relying on representation from Asetek (relayed through counsel) that the blades in Exhibit 275 are the blades used for machining Antarctica. During Dr. Tuckerman's second deposition on this issue, he further confirmed the above points even though Defendants' counsel refused to show Exhibit 275 to Dr. Tuckerman at the deposition, misrepresented that the document was entirely in Danish, and forced Dr. Tuckerman to answer questions from memory. Ex. B at 25:15-30:13, 89:24-94:15. Additionally, Asetek's counsel represented that Exhibit 275 is an Asetek document that was provided via counsel to Dr. Tuckerman (see id. at 89:24-94:15), and Dr. Tuckerman properly relied on these representations under Rule 703. Thus, Defendants' criticisms of Exhibit 275 and Dr. Tuckerman's consideration of it are meritless and do not warrant exclusion.

In Asetek's opposition to Defendants' motion to strike Exhibit 275 (Dkt. 389), Asetek is separately addressing Defendants' argument that Exhibit 275 should be excluded under Rule 37 for belated disclosure. In brief, Exhibit 275 is a proper rebuttal to Defendants' expert's criticisms of Dr. Tuckerman's microchannels opinion. Moreover, even though Exhibit 275 was disclosed after expert reports during Dr. Tuckerman's deposition, there is no harm or undue prejudice to Defendants because Defendants' expert was able to respond to it during his deposition. Moreover, Defendants have

1	deposed Dr. Tuckerman twice on Exhibit 275 (i.e., a second time after the initial disclosure of Exhibit		
2	275), thus curing any alleged harm or prejudice to Defendants from the disclosure of Exhibit 275.		
3 4	B. Dr. Tuckerman's Non-Infringement and Invalidity Reports Should Not Be Stricken Because He Substantially Participated in the Preparation of His Reports and the Reports State His Opinions and Analyses		
5	Defendants' argument that Dr. Tuckerman's Non-Infringement and Invalidity Reports should		
6	be stricken entirely because he allegedly did not "draft" them is groundless because Dr. Tuckerman		
7	testified—which Defendants fail to bring to the Court's attention—that he substantively participated		
8	in the preparation of both Reports and all opinions in the Reports are his opinions.		
9	Specifically, Dr. Tuckerman testified at his deposition on Deposition 20, 2021 in connection		
10	with his Invalidity Report that the Report was prepared "under his guidance," he "reviewed it very		
11	carefully," he "made a lot of changes," there were numerous "discussions over the phone" and		
12	"teleconferences" with counsel before and during the preparation of the Report "over a period of a few		
13	months," and that he agrees with "every word" in the Report and "stand[s] by it":		
14 15	Q. Well, you're free you know your report better than me, Dr. Tuckerman. You wrote it; right? A. I did.		
16 17 18	Q. You wrote every single word in your report? A. Well, okay. Arpita wrote we we had discussions over the initial discussions over the patents. And Arpita, you know, and maybe her associates, I don't know, wrote the first draft and I reviewed it very carefully.		
19	I had numerous teleconferences with her. She made you		
20	know, where I gave changes that I requested either for clarity or for certainly for technical accuracy. And she		
21	would make those changes and, you know, we'd go back and forth. And so over a period of a few months, the report		
22	came together, so.		
23	Q. What percentage of the report would you say include words that you wrote versus a percentage of the report that		
24	includes words that Asetek's attorneys wrote? A. Well, I think that every I can't say that every single		
25	word was chosen by me, but <i>I absolutely agreed with the</i> final product, every word in the final product.		
26	A I can't give you an engwer to Twhat negonings of the		
27	A. I can't give you an answer to [what percentage of the report I wrote] because I didn't keep count, and I assert that it doesn't matter because <i>what matters is, is it a report</i>		
28	that I agree with the contents of and stand by, and I do.		
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1	Q. Did you write less than 50 percent of the words in your report?		
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3	A. As I said, I did not keep track. But I reviewed everything and I made a lot of changes, and I agreed with the final product.		
4	Q. To the best of your knowledge sitting here today under		
5	oath, did you write less than 50 percent of the words in your report?		
6	A. I how would you define "write"? Okay. Did I type the		
7	words into the computer? For the most part, no. I mean, the they're very lengthy, there's a lot of redundancy, and so		
8	they they created the report under my guidance. I mean, I've been, you know, a manager before, and I don't always		
9	write the drafts of reports myself, but I make sure that the final product is the way that I want it.		
10	Ex. A at 144:12-147:6 (emphases added).		
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12	Dr. Tuckerman testified again at his deposition on December 22, 2021 in connection with his		
13	Non-Infringement Report that he wrote his Non-Infringement Report "in collaboration with counsel,"		
	that there was "lots of back and forth" with counsel on the draft, and all the opinions in the Report are		
14	his opinions:		
15 16	Q. Okay. Okay. Now, for the opinions in your rebuttal report, did you write those opinions?		
	A. They were written in collaboration with counsel.		
17	Q. Okay. And is it fair to say that the opinions in your		
18 19	noninfringement report are your own though? A. That's absolutely correct.		
	Q. Okay. And they're not someone else's		
20	opinions; right? A. That is correct.		
21	A. Yeah. By the way, I should mention <i>there was back and</i>		
22	forth before, you know, the first draft and lots of back and forth after the first draft, you know.		
23	Q. Great. Great. I wouldn't expect anything less.		
24	Ex. C at 14:22-15:21 (emphases added).		
25	The above testimony, which Defendants omitted from their motion, shows that Dr.		
26	Tuckerman's reports are proper under the law. "Federal Rule of Civil Procedure 26 does not require		
27	experts to unilaterally write their reports. Indeed, attorneys may be involved in the preparation of an		
28	expert report." NetFuel, Inc. v. Cisco Sys. Inc., No. 5:18-CV-02352-EJD, 2020 WL 1274985, at *3		

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(N.D. Cal. Mar. 17, 2020) (citing *Manning v. Crockett*, 1999 WL 342715, at *3 (N.D. Ill. May 18, 1999) (noting that an expert need only "substantially participate" in the preparation of a report)). As the court in *NetFuel* found, preparation of the report in "collaboration" with counsel, which is exactly what Dr. Tuckerman did, is proper under Rule 26. See id.; see also Ex. C at 14:22-15:21.

Moreover, contrary to Defendants' arguments about the meaning of "prepared" in Rule 26(a)(2)(B), "counsel's composing of initial drafts of reports based upon communications with the expert and allowing the expert to substantively revise the report to reflect the expert's opinions, or counsel's drafting of the report with the expert's substantive assistance" are permissible under Rule 26 and do not warrant striking of the report. Accentra Inc. v. Staples, Inc., No. CV 07-5862 ABC (RZX), 2010 WL 11459205, at *4 (C.D. Cal. Oct. 7, 2010) (citing Seitz v. Envirotech Sys. Worldwide Inc., No. CIV. A. H-02-4782, 2008 WL 656513, at *2-3 (S.D. Tex. Mar. 6, 2008) and Crowley v. Chait, 322 F. Supp. 2d 530, 544–45 (D.N.J. 2004)). Here, as in Accentra and Seitz, Asetek's counsel "created the initial drafts of expert reports based upon [Dr. Tuckerman's] substantive opinions communicated to counsel and, after the initial drafts were created by counsel, [Dr. Tuckerman] revised them by adding, deleting, and modifying content," which meets Rule 26's requirements because Dr. Tuckerman was substantively involved in the preparation of his Reports. Accentra, 2010 WL 11459205, at *4; see Seitz, 2008 WL 656513, at *2-3; see Ex. A at 144:12-147:6, Ex. C at 14:22-15:21(Dr. Tuckerman testifying that the Reports were prepared based on information he communicated to counsel, that he reviewed and edited the Reports, and the Reports captured his opinions and analyses). Indeed, there is no requirement in Rule 26 that "the expert be the person who actually puts pen to paper (or fingers to keyboard)." Crowley, 322 F. Supp. 2d at 544–45.

The case cited by Defendants—Numatics, Inc. v. Balluff, Inc.—is inapposite because there the expert's report was excluded because counsel wrote the entire report and the expert only made "fairly minor" changes before signing it. 66 F. Supp. 3d 934, 944 (E.D. Mich. 2014). That is not the case here. Unlike Numatics, here Dr. Tuckerman testified that he "collaborat[ed] with counsel" in preparation of his Reports, that the Reports were created "under [his] guidance," he made "a lot of changes" in extensive "back and forth," and that the opinions in the report are his own. See deposition testimony cited above; see also Accentra, 2010 WL 11459205, at *5 (concluding that expert met Rule

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report"); *Icon-IP Pty Ltd. v. Specialized Bicycle Components, Inc.*, 87 F. Supp. 3d 928, 949–50 (N.D. Cal. 2015) (declining to strike expert report even though counsel typed the report, because the expert testified that the information in the report came from him).

26's requirements because her "testimony does not indicate that she had no involvement in the final

The few instances noted by Defendants as examples that "Dr. Tuckerman was only nominally involved in preparing" his Reports are deliberately one-sided and do not disclose the complete picture. First, Defendants complain that Dr. Tuckerman did not "identify his own obviousness grounds." Dkt. 397 at 13. But Dr. Tuckerman got involved in this case only in early 2021 after Asetek's previous expert (Dr. Donald Tilton) had to bow out of the Asetek cases because he took a full-time job in the U.S. military base in Guam that kept him very busy and unavailable to consult in this case. Bhattacharyya Decl., ¶ 12. Asetek's invalidity contentions (which identify Asetek's prior art references and obviousness combinations for this case) had already been submitted back in 2019, and it is understandable that Dr. Tuckerman was not involved in selecting the initial list of prior art references. Id. Nevertheless, as Dr. Tuckerman testified, he did verify that the previously selected prior art references and systems were "appropriate" and "legitimate prior art"; that he did his own prior art search and identified background references such as Kandlikar and his Ph.D. thesis; and that the final selection of the invalidity grounds in his Report was a "mutual discussion" with counsel. Ex. A at 167:4-170:21. Not surprisingly, Defendants do not address any of this testimony in their motion because it shows that Dr. Tuckerman was thoroughly involved in the preparation of his Report, and even conducted his own prior art search (see id. at 168:21-23).

Second, Defendants allege that Dr. Tuckerman's unfamiliarity with IPR documents cited in his Materials Considered List and his alleged "lack of understanding on what his obviousness grounds were" or "what it means to rely on a reference" suggest that he "barely participated in the drafting process." Dkt. 397 at 13-14. They could not be more wrong. At the time Dr. Tuckerman submitted his Reports and sat for his depositions, he had only assisted Asetek with one brief IPR declaration and he had never worked as an expert in any other IPR proceeding before. Bhattacharyya Decl., ¶ 13. So, Dr. Tuckerman was understandably unfamiliar with the ins and outs of IPR proceedings and was thrown off by IPR jargon and procedural terms such as "Final Written Decision." Ex. C at 16:9-23:11. But

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contrary to Defendants' allegation, that does not mean he was unfamiliar with the content of any of the IPR papers, and he testified he did in fact review the Tilton Declaration in question in preparing his Invalidity Report. See id. Likewise, as the transcript of the December 20 deposition shows, Dr. Tuckerman credibly answered all questions regarding his obviousness grounds even in the face of hostile questioning tactics and repeated badgering by Defendants' counsel. See Ex. A at 160:20-167:2, 170:23-179:19. Even when Dr. Tuckerman said he did not understand what Defendants' counsel meant by "rely upon" in the legal context (id. at 166:17-18; 172:2-13; 176:10-11), Defendants' counsel refused to explain and kept badgering Dr. Tuckerman with the same questions. It is readily apparent from the transcript of his subsequent deposition on December 22 (Dkt. 397-4) regarding the Non-Infringement Report that Defendants' questioning attorney repeatedly attempted to harass and confuse Dr. Tuckerman in search of a soundbite. There is not enough room for Asetek to respond to every one of Defendants' citations, but each involves similar issues with Defendants' counsel asking vague, incomplete, and/or improper questions and denying Dr. Tuckerman the opportunity to review his Report or certain exhibits. Bhattacharyya Decl., ¶ 14. In *Icon-IP*, Icon similarly argued that Specialized's expert "was unable to clearly discuss the opinions in his report" at his deposition. 87 F. Supp. 3d at 949–50. But the court "[h]aving reviewed [the expert's] report and testimony," "conclude[d] that [the expert's] statements at his deposition do not establish that counsel impermissibly 'ghostwrote' [his] report," and declined to strike the report particularly because the expert testified at his deposition that he "provided the information, analyses, and opinions expressed in his report." Id. Dr. Tuckerman's Reports and the totality of his deposition testimony warrant the same result here.

Next, Defendants' counsel alleges the similarity between some portions of Dr. Tilton's (Asetek's former expert) IPR Declaration and Dr. Tuckerman's Report show lack of involvement by Dr. Tuckerman. Dkt. 397 at 14-15. That is again incorrect. Dr. Tuckerman testified that he "concur[s]" with Dr. Tilton's position and is making the "exact same physical arguments in the text" but he is not improperly adopting or "relying" on Tilton's declaration, and that he did not believe he needed to use different words to make the exact same arguments because "Tilton's opinion is very sound, and there's some things that can't really be said more clearly or better than the way he put it":

I am not relying on [the Tilton declaration] per se. I

certainly agree with Tilton, but I would have made an

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2 identical argument, and I do make that argument. So I'm not relying on Dr. Tilton's opinion 3 in this matter, although he is an expert who I have great respect for. So I would say I concur with Tilton's position, 4 but I'm not relying on it because I would have made, and I do make, the exact same physical arguments in the text. 5 Ex. C at 22:24-23:22 (emphasis added). 6 Q. Certainly. So, Dr. Tuckerman, do paragraphs 2 and 4 of 7 Dr. Tilton's supplemental declaration in IPR2020-00825 use nearly the same words verbatim as in, respectively, 8 paragraphs 48 and 50 of your noninfringement report? 9 A. There is -- there are sections of -- there are, shall we say -- there is the use of the same words or a few words put together in places that -- let's put it this way, the -- Tilton's 10 opinion is very sound, and there's some things that can't 11 really be said more clearly or better than the way he put it. So I didn't see any reason that -- you know, *having seen* the report previously, you understand, and agreeing with 12 that, I didn't see any reason to make every word different. 13 I didn't think there was an issue of, you know, being 14 accused of plagiarism or something like that. It's just that in technical fields, when something is correct and true, 15 people say things the same way. And so I didn't see any problem -- I don't see any problem that, in certain places, 16 the same words were used as Tilton because it's -- but it's -- it is a position that is 100 percent defensible on its 17 own. And the fact that some of the words are similar, I -does not mean that I am relying on his document. 18 19 Id. at 24:21-25:25 (emphases added); see also id. at 29:15-31:17 (Dr. Tuckerman testifying that "when 20 something is true and correct and technically correct," "I don't feel the need to change around the 21 words," and "these are exactly my own opinion on the subject because they're manifestly and 22 obviously true physical facts.") (emphasis added). In a similar situation in NetFuel, when plaintiff 23 NetFuel argued that Cisco's expert's report was suspect because "the '[claim] charts are similar to 24 claim charts prepared by counsel earlier in the litigation," the court found it "irrelevant" because "the 25 charts 'necessarily address the same claims and prior art references." NetFuel, 2020 WL 1274985, 26 at *4 (emphasis in original; citation omitted). Similarly here, Defendants' arguments about alleged 27 similarity between a prior Tilton declaration and a small portion of Dr. Tuckerman's Non-

Infringement Report is immaterial because Dr. Tuckerman is addressing the same claims, the same references, and same scientific principles in his Report. *See id*.

In sum, the totality of Dr. Tuckerman's deposition testimony demonstrates his substantial participation in the preparation of his Reports and compliance with Rule 26. Defendants' motion takes snippets of Dr. Tuckerman's deposition out of context, but nowhere do Defendants acknowledge that Dr. Tuckerman submitted four lengthy expert reports, covering a range of subject matter involving both Asetek and Defendants' patents, and that Dr. Tuckerman has not worked as an expert previously. Bhattacharyya Decl., ¶ 13. Therefore, it was natural for him to ask to see his Reports and exhibits when answering questions in his depositions, and not answer everything from memory. Nor does Defendants' motion acknowledge that Dr. Tuckerman testified to his substantial participation both before and after preparation of the first draft by counsel and that the opinions in the Reports are his opinions. When Dr. Tuckerman's Reports and his complete deposition transcripts are read in context, his substantial involvement in the preparation of his Reports become clear. Therefore, striking of the Reports under Rule 26 is not warranted.

C. Dr. Tuckerman's Opinion on the Asetek Gen 3 and the Cooler Master Product Should Not be Stricken Because He is Relying on Asetek's Documents and Defendants' Party Admission that these Are Non-Infringing and Would be Acceptable to Liquid Cooling Customers

Defendants' motion attempts to make much of the fact that Dr. Tuckerman did not personally inspect Asetek's Gen 3 product or Cooler Master's MasterLiquid 240R product discussed in ¶84 of his Rebuttal Non-Infringement Report (Dkt. 395-6). But Dr. Tuckerman did not have to inspect these products to opine on them because *he relied on Asetek and Defendants' documents and Defendants' own expert's opinion to reach the conclusion that these products are acceptable non-infringing alternatives*. Contrary to Defendants' allegations, Dr. Tuckerman neither "assumed" that these products are non-infringing alternatives, nor are his opinions "unexplained."

Specifically, Dr. Tuckerman Non-Infringement Report says:

"Asetek could implement an end-to-end flow within a single microchannel array (as in Asetek's Gen 3 and Cooler Master products) and thus completely avoid Defendants' patent claims."

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Dkt. 395-6, ¶84. It cannot be disputed that continuous end-to-end flow within a single microchannel array (i.e., a non-split flow design) is a non-infringing design around to Defendants' patent claims. See, e.g., Ex. D at 109:9-12 ("I believe Defendants' patents do require a channel that is getting its fluid split up from the top of the channels, between its first end and the second end."); Dkt. 396, ¶746 (discussing that Defendants' patents are directed to bifurcation of flow, i.e., split flow, in microchannels). And as discussed below, Asetek and Defendants' own documents indisputably establish that the Asetek Gen 3 and the Cooler Master MasterLiquid 240R commercialized products have non-split flow designs, and therefore do not infringe Defendants' patent claims.

For Asetek's Gen 3 product, Defendants' own expert, Dr. John Abraham, admits that the Gen 3 "utilizes a traditional end-to-end flow path for the cooling." Dkt. 396, ¶760. Asetek's document produced in discovery and reviewed by Dr. Tuckerman also discloses that Asetek's Gen 3 does not have a split-flow design. *See* Ex. E. It is also undisputed that Gen 3 is a non-infringing alternative to Asetek's Gen 4, 5, 6, and 7 products accused by CoolIT, and Dr. Tuckerman did not have to physically inspect the Gen 3 to verify this undisputed point. As to whether a non-split flow design similar to the Gen 3 would be acceptable to the customers, Asetek will have the CEO of Asetek, André Eriksen, testify about that (not Dr. Tuckerman).

For the Cooler Master product, Dr. Tuckerman is relying on Defendants' own competitive analysis (Ex. F) that shows that the competing Cooler Master product has a non split-flow design, i.e., a non-infringing design around. *See* Ex. F, PDF p. 6 (COOLIT0036279). Defendants' Rule 30(b)(6) witness verified this CoolIT document states the Cooler Master product does not have split flow. Ex. G at 143:2-144:11, 145:8-16. As further corroboration, Dr. Tuckerman also relied on representation from counsel, who personally inspected the Cooler Master product, that it does not have split flow and therefore does not infringe Defendants' patents. Bhattacharyya Decl., ¶ 15. Under Rules 26 and 703, it was proper for Dr. Tuckerman to consider and rely on all of these "facts or data," and he was not required to personally confirm that the Cooler Master MasterLiquid 240R does not have split flow and therefore does not infringe Defendants' patents—this point is indisputably presented in Defendants' own document.

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Regarding whether Cooler Master's MasterLiquid 240R would be an acceptable alternative to
the Asetek Gen 4, 5, 6, and 7 products that have split flow, Dr. Tuckerman is again properly relying
on the same CoolIT competitive analysis, which identifies the Cooler Master product as a competitor
to CoolIT and Asetek, and as having thermal performance superior to that of Defendants' split flow
design, and therefore an acceptable alternative for liquid cooling customers. See Dkt. 395-6, ¶84 (The
MasterLiquid 240R's "thermal resistance at a given fan speed is better than the comparable Corsain
product [design by CoolIT] that has split flow in the microchannels MasterLiquid 240R is a
meaningful competitor to Asetek and CoolIT/Corsair's desktop liquid cooling products."). It is
therefore reasonable to infer that the thermal performance of the non-split flow Cooler Master product
is acceptable to customers of desktop liquid cooling products.); see also Ex. C at 71:6-72:17 (CoolIT
document COOLIT0036274-88 shows there "is a nonsplit-flow design that is performing comparable
to other split-flow designs, and given that, [] it would seem to be a perfectly acceptable option for
customers."). The following testimony from Dr. Tuckerman further clarifies that the Cooler Master
product is a "meaningful competitor" to both CoolIT and Asetek's liquid cooling products because
they all compete in the same liquid cooling market, and therefore the Cooler Master non-split flow
design would be an acceptable alternative to Asetek's split flow design:

Q. So when you say the term "meaningful competitor," are you talking about a meaningful competitor to CoolIT?

A. -- what I say in the document is a meaningful -- "a meaningful competitor to Asetek and CoolIT/Corsair's desktop liquid cooling products." I mean, it is all the same market, you know. They're all -- Asetek, CoolIT/Corsair, they are going after the same market.

And so a product that is a meaningful competitor to would also presumably be a meaningful competitor to Asetek because it is taking market share from, you know, both of them.

Ex. C at 79:5-20; see generally id. at 76:5-83:23. Dr. Tuckerman further testified that Asetek's design around (from split flow to non-split flow) would be relatively easy for Asetek to implement. *Id.* at 73:2-8. Accordingly, Dr. Tuckerman has sufficiently explained that a non-split flow design (as in Asetek Gen 3 and Cooler Master MasterLiquid 240R) is both *available* and *acceptable* to customers in the liquid cooling market.

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The case cited by Defendants—Acceleration Bay LLC v. Activision Blizzard Inc.—is inapposite because there the technical experts did not opine at all that "the earlier games" were noninfringing and the damages expert simply "assume[d] non-infringement based on Plaintiff's decision not to pursue infringement claims from prior to 2012." No. 1:16-CV-00453-RGA, 2019 WL 4194060, at *8 (D. Del. Sept. 4, 2019). That is not the case here. Asetek's technical expert is not "assuming" non-infringement, rather he is properly relying on Asetek and CoolIT documents and undisputed facts to opine that a non-split flow design (as in Asetek Gen 3 and Cooler Master MasterLiquid 240R) would be an acceptable non-infringing alternative to the split flow design in Defendants' asserted patent. Dr. Tuckerman's opinion in ¶84 of his Non-Infringement Report should not be stricken.

Defendants' Motion Does Not Identify Any Legal Basis for Striking Dr. Tuckerman's Opinion on Defendants' Impeller Blades. Regardless, Dr. D. Tuckerman's DOE Opinions are Neither Logically Flawed, Nor Does He **Provide Multiple Definitions on "Radial Blades"**

Although Dr. Tuckerman's doctrine of equivalents opinions refer to Dr. Stein's results and analysis, his opinions also stand on their own. See Dkt. 386-5, ¶291, 321 (Dr. Tuckerman providing an independent opinion that "the impeller in the [accused CoolIT products] (hereinafter the 'CoolIT impeller') is equivalent to an impeller with backward-curved blades, and thus the [accused CoolIT products] infringe[] claim 17 [of the '362 patent] under the doctrine of equivalents."); see also id. at ¶291-293 (discussing that CoolIT's impeller is equivalent to an impeller having curved blades under a function-way-results test). Regardless, Dr. Tuckerman's DOE opinions on the CoolIT impeller blades are consistent and reliable, and his logic has not been disputed by any of Defendants' experts.

1. There is no logical error in Dr. Tuckerman's DOE opinions on the CoolIT impeller blades

Defendants have not identified any legal basis for striking Dr. Tuckerman's DOE opinions. Defendants attempt to dress their motion as a *Daubert* motion by mentioning reliability, but "the test under Daubert is not the correctness of the expert's conclusions but the soundness of his methodology." Daubert v. Merrell Dow Pharms., Inc., 43 F.3d 1311, 1318 (9th Cir. 1995). Here, Defendants have not identified any error in Dr. Tuckerman's methodology (in fact, there is no test or methodology involved in Dr. Tuckerman's DOE opinions), and instead challenge his opinions and

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conclusions as illogical, which is not permissible under *Daubert*. Moreover, even if there were any logical error, that could be explored through cross examination at trial and would go to the weight and credibility of the opinion (not admissibility). Regardless, there are no errors in Dr. Tuckerman's DOE opinions, as explained below.

The crux of Defendants' argument is that Dr. Tuckerman's proposed hypothetical claim covering the equivalents of "an impeller having curved blades" is broader than the claimed "curved blades" and covers other non-radial blades that behave or perform like curved blades. Dkt 397 at 19 (Defendants arguing that "Dr. Tuckerman's attempt to rewrite 'curved blades' into 'non-radial blades' that include blades with no 'curvature' or 'arc' is illogical and must be rejected."). This entire argument is premised on mischaracterization of DOE law. Contrary to Defendants' arguments, a hypothetical claim in a DOE analysis must, by definition, be broader than the literal claim—after all, the whole point of the DOE hypothetical claim analysis is to "expand[] the right to exclude to 'equivalents' of what is claimed." Wilson Sporting Goods Co. v. David Geoffrey & Assocs., 904 F.2d 677, 684-85 (Fed. Cir. 1990) (explaining that a hypothetical claim in a DOE analysis is "broader" and goes beyond the literal scope of the claim to cover equivalents of what is claimed) (emphasis in italics in original; bold emphasis added); G. David Jang, M.D. v. Boston Scientific Corp., 872 F.3d 1275, 1286-87 (Fed. Cir 2017) (requiring the hypothetical claim to be broader than the claim as issued).

The seminal Wilson Sporting Goods decision further explains: "The doctrine of equivalents, by definition, involves going beyond any permissible interpretation of the claim language; i.e., it involves determining whether the accused product is 'equivalent' to what is described by the claim language." Wilson Sporting Goods, 904 F.2d at 684-85 (emphasis added); see also Ultra-Tex Surfaces, Inc. v. Hill Bros. Chem. Co., 204 F.3d 1360, 1364-65 (Fed. Cir. 2000) ("Under a hypothetical claim analysis, a patentee proposes a hypothetical claim that is sufficiently broad in scope to literally encompass the accused product or process.") (citations omitted; emphasis in original). Therefore, under Wilson Sporting Goods and similar cases, it is both expected and legally appropriate that Dr. Tuckerman's proposed hypothetical claim covers curved blades and other non-radial blades (such as Defendants' impeller) that are equivalent to curved blades. See Dkt. 386-5, ¶292. Not surprisingly, Defendants do not cite any cases to support its erroneous proposition that Asetek's claims

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cannot cover other non-radial blades, such as CoolIT's, under an equivalency theory. Nor is Asetek aware of any such cases.

In its attempt to fabricate a logical error in Dr. Tuckerman's opinions, Defendants make several erroneous statements and accusations that must be corrected. These are addressed in turn below.

First, Defendants' motion points to Dr. Tuckerman's testimony that a curved blade has "an arc to it" or that it is "not everywhere linear." Dkt. 397 at 17. But that point is irrelevant in a DOE analysis because Asetek is not making a literal infringement argument. That is, even if Defendants' impeller blades do not have "an arc to it" or are "linear everywhere," the accused CoolIT products could still infringe the '362 patent claims under a DOE theory if Defendants' purportedly non-curved blades are equivalent to a curved blade under the function-way-result test. *Wilson Sporting Goods*, 904 F.2d at 683 ("Infringement *may* be found under the doctrine of equivalents if an accused product 'performs substantially the same overall function or work, in substantially the same way, to obtain substantially the same overall result as the claimed invention."") (emphasis in original).

Second, Defendants' motion crop-quotes and mischaracterizes Dr. Tuckerman's deposition testimony to suggest that he agrees that "curved" describes the "shape of the blade." Dkt. 397 at 17. Dr. Tuckerman did not say that. Instead, he testified that "[i]f we were taking about shapes, [the word 'curved'] would describe shapes that have curvature somewhere on them," but "we're not talking about shapes" here; "the word 'shape'" does not appear in the claims. Ex. H at 262:1-263:14. Therefore, Defendants' attempt to argue that "an impeller having curved blades" means "an impeller having blades that are curved in shape" is incorrect and unsupported by Dr. Tuckerman's testimony. Defendants' attempts to suggest otherwise are mischaracterizations.

Third, Defendants present attorney arguments that a straight-blade impeller is not a radial impeller, that "'straight' and 'radial' are not synonymous or otherwise coextensive as plain English," and that Asetek's experts' opinions that "a straight impeller is generally radial' merely *narrows* the scope of 'straight' impellers by requiring them to be *also* 'radial," etc. Dkt. 397 at ¶18 (emphases in original). But contrary to Defendants' unsupported criticisms, both of Asetek's experts (Dr. Tuckerman and Dr. Stein) have testified that in pump technology, a straight impeller (also referred to as straight-blade impeller) is understood to be a radial impeller. Dkt. 386-5[Tuckerman Report], ¶291

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1	("a straight impeller is generally radial"); Dkt. 399-10 [Stein Report], ¶7 ("I do not agree that the	
2	CoolIT impeller can be referred to as straight-blade impeller because generally radial impellers —	
3	where the fluid flow leaves the impeller in radial direction, perpendicular to the pump shaft — are	
4	known in the field of pump technology as straight-blade or straight-vane impellers."); see also below	
5	testimony from Drs. Stein and Tuckerman:	
6 7	In my report, as I understand pump technology, straight blade is a radial blade and a radial blade is a definition of straight. It's a blade that is perpendicular to the direction of	
8	rotation.	
9	Dkt. 397-21 at 55:7-17 (emphasis added).	
10	I would I would say that I was not surprised that the	
11	backward-slanted blades of CoolIT performed comparably to a to the curved-blade design that Dr. Stein used, and the reason why I was not surprised was because, to me, the	
12	main issue on blade performance is exit angle at the circumference. And, you know, that's the difference	
13	between <i>radial, commonly understood as straight,</i> and swept.	
14	Ex. H at 41:18-42:1 (emphasis added).	
15	In contrast, Defendants' motion only presents attorney arguments, no expert testimony, that	
16	"non-radial blades include straight blades." Dkt. 397 at 18. Defendants cite no evidence for this	
17	argument, and presumably even Defendants' own experts do not support this erroneous point (given	
18	that there is no citation to any supporting opinion by Defendants' experts).	
19	Fourth, Defendants further mischaracterize Dr. Tuckerman's Non-Infringement Report and	
20	deposition testimony to argue that he improperly equated "curved blades" to "non-radial blades," such	
21	that it amounts to "elimination of the 'curved' limitation." Dkt. 397 at 18-19. That is again incorrect	
22	as well as unsupported attorney argument. Contrary to Defendants' allegation, Dr. Tuckerman has	
23	been very clear that curved impeller blades are a "subset of the class of nonradial blades." Ex. H at	
24	56:14-57:4 (excerpted below):	
25	Q Is the term "curved blades" broader or narrower than the term "nonradial blades"?	
26	A. Well, it is a form of nonradial blade. Certainly, you	
27	can't be curved and be radial at the same time. So it would be a I mean, it's a subset of the class of nonradial	
28	blades, a curved blade would be. Q So the terms "curved blades" and "nonradial blades" do not have the same scope, correct?	

A: A curve, to me, implies that there is, you know, some nonlinearity to the shape of the blade so that it, you know, has an arc to it. So they're not identical terms, no.

More specifically, in pump technology, a curved blade is a type of non-radial blade. *Id.* The class of non-radial blades is broader than curved blades, and includes other blades that are non-radial and behave like a curved blade (such as the CoolIT impeller blades). *See id.*; Dkt. 386-5, ¶291 ("[T]he CoolIT impeller is non-radial just like a backward-curved impeller (and unlike a radial (straight) blade impeller))"). Thus, Dr. Tuckerman's opinion that a curved blade is non-radial does not improperly "eliminate" curved blades, as argued by Defendants' attorneys. Rather, Dr. Tuckerman's DOE analysis permissively expands the "impeller having curved blade" limitation—as he is required to do under *Wilson Sporting Goods*, *Boston Scientific*, and other cases—to include other non-radial blades that behave like curved blades. *See* Dkt. 386-5, ¶292 ("an impeller having curved blades" = "a curved-blade impeller as well as other non-radial impellers that behave or perform like a curved-blade impeller"). There is nothing incorrect, inconsistent, or illogical in Dr. Tuckerman's argument, and Defendants have not cited any expert testimony or evidence to support this attorney argument.

Fifth, Defendants make a last-ditch attempt to smear Dr. Tuckerman's opinions by arguing that he presented no evidence to support his *opinion* that a curved blade is equivalent to other non-radial blades. Dkt. 397 at 19. Defendants did not (and cannot) present any case law to support its preposterous position that a DOE opinion in a litigation must be "peer reviewed," "accepted in the scientific community," etc. There is no such requirement. Dr. Tuckerman is applying a proper and accepted DOE legal test (i.e., the function-way-result test) that is straight out of legal hornbooks to show that Defendants' non-radial impeller blade is equivalent to a curved blade. Dkt. 386-5 [Tuckerman Infringement Report], ¶290-293; Dkt. 399-10 [Stein Report]. At bottom, Dr. Tuckerman's opinions and conclusions, even if disputed by Defendants' expert, should not be challenged under Rule 702 and *Daubert*. Defendants' five mischaracterizations discussed above do not change that, but nevertheless had to be corrected to set the record straight.

2. Dr. Tuckerman Did Not Provide Multiple Definitions of "Radial" Blades

Dr. Tuckerman did not present different definitions of "radial" blade in his Non-Infringement Report. He may have used different words to describe it, but the meaning is the same. *Compare* Dkt. 386-5, ¶291 *with* Ex. H at 53:15-54:19. For example, Dr. Tuckerman testified in his deposition that a radial blade has "to be along the radius," i.e., "[t]hey have to be coincident with radial lines drawn from the center going outward." Ex. H at 53:15-54:19. Defendants' attorneys pretend to not understand Dr. Tuckerman's deposition testimony to assert it is inconsistent with his opinion in the Report. But it is axiomatic that the radial lines (along which the radial blades extend) are perpendicular to the axis of rotation of the impeller blades in a 2D coordinate system.

Moreover, there is no misalignment in the definitions of "radial blade" provided by Drs. Tuckerman and Stein. They simply used different coordinate systems to define the term—Dr. Tuckerman using a cartesian coordinate system (x, y, z); Dr. Stein used a cylindrical coordinate system (r, θ, z) . Bhattacharyya Decl., ¶ 16. And even if there is some disconnect between their definitions, that should be explored through cross examination at trial, and not excluded. *In re REMEC Inc. Sec. Litig.*, 702 F. Supp. 2d 1202, 1220 (S.D. Cal. 2010) (citing *Daubert*, 509 U.S. at 596).

Most importantly, both Asetek's experts agree that Defendants' blades are "not straight blades" and that "a straight blade is a radial blade." Dkt. 397-21 at 67:13-22, 55:5-17; *cf.* Dkt. 386-5, ¶291 ("the CoolIT impeller is non-radial just like a backward-curved impeller (and unlike a radial (straight) blade impeller)."). Therefore, Defendants' non-radial impeller blades may infringe Asetek's claims under a DOE analysis. Dkt. 386-5, ¶292, 293. Defendants' argument that "both experts agreed that the alleged CoolIT blades are 'radial' and cannot infringe even under Asetek's hypothetical claim" is a blatant mischaracterization of the record. Dkt. 397 at 21. And as discussed above, DOE opinions in litigations and conclusions do not have to be peer reviewed, published, etc. They are the subject of expert discovery and are tested using the traditional methods of cross examination and presentation of counter evidence. *In re REMEC*, 702 F. Supp. 2d at 1220.

1	Dated: April 14, 2022	FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP
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